

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended)

A product which has a surface provided with an image in the form of a coding pattern which includes symbols representing at least two different values, each symbol comprising a raster point and at least one marking;

the raster point being included in a raster which extends over the surface;

at least one value of each symbol being indicated by a displacement of a center point of the at least one marking in relation to a raster point; and the markings each having a spatial extent which, in combination, at least partially form the image.

Claim 2. (Original)

A product according to claim 1, wherein the spatial extents of the markings vary insofar as the markings have essentially an identical form and a varying size.

Claim 3. (Original)

A product according to claim 2, wherein the spatial extents of the markings vary inasmuch as the markings which at least partially overlap one another comprise at least one contrasting indicator, the spatial extent and a place within the marking indicating a center point of the marking.

Claim 4. (Original)

A product according to claim 3, wherein the contrasting indicator is in the form of at least one circle.

Claim 5. (Original)

A product according to claim 3, wherein the contrasting indicator is in the form of at least one point.

Claim 6. (Original)

A product according to claim 3, wherein the contrasting indicator is in the form of at least one rectangle.

Claim 7. (Original)

A product according to claim 3, wherein the coding pattern is a position-coding pattern which codes a plurality of positions on the surface, each position being coded by a plurality of symbols.

Claim 8. (Original)

A product according to claim 7, wherein each symbol contributes to the coding of more than one of said plurality of positions.

Claim 9. (Original)

A product according to claim 8, wherein each symbol contributes to the coding of both a first and a second position coordinate.

Claim 10. (Original)

A product according to claim 9, wherein the at least one value of each symbol is translatable into at least one first number which is used for coding the first position coordinate and at least one second number which is used for coding the second position coordinate, the symbols in the position-coding pattern together representing a first position code for the first position coordinate and a second position code for the second position coordinate.

Claim 11. (Original)

A product according to claim 10, wherein the position-coding pattern is based on a first cyclic number series which has the characteristic that no sequence with a first predetermined number of figures occurs more than once in the number series.

Claim 12. (Original)

A product according to claim 9, wherein the first coordinate is coded such that a first cyclic number series, which has the characteristic that no sequence with a first predetermined number of figures occurs more than once in the number series, is repeated in columns over the surface, the columns beginning at different places in the number series.

Claim 13. (Original)

A product according to claim 12, wherein the second coordinate is coded in that a second cyclic number series, which has the characteristic that no sequence with a second predetermined number of figures occurs more than once in the number series, is repeated in rows over the surface, the rows beginning at different places in the number series.

Claim 14. (Original)

A product according to claim 1, in which the said raster and said raster point are virtual.

Claim 15. (Original)

A product according to claim 14, wherein each symbol has precisely one marking which can be placed in any of four predetermined positions on lines of the raster so that the symbol has precisely four values.

Claim 16. (Currently Amended)

A method for generating an image in the form of a coding pattern which contains symbols, wherein the symbols represent at least two different values, each symbol comprising a raster point and at least one marking; the raster point being included in a raster which extends over the surface; a value of each being indicated by a displacement of a center point of the at least one marking in relation to the raster point, the method comprising:

determining for each of the markings, on the basis of information in the image, spatial extents of the markings which, in combination, at least partially form the image.

Claim 17. (Original)

A method according to claim 16, wherein determining of the spatial extents of the markings further includes determining markings which at least partially overlap one another; and

determining for the overlapping markings at least one contrasting indicator, the spatial extent and a place within at least one overlapped marking of which indicate a center point of the at least one overlapped marking.

Claim 18. (Original)

A method for reading a coding pattern which is located in an image and which comprises symbols, wherein the symbols represent at least two different values, each symbol comprising a raster point and at least one marking; the raster point being included in a raster which extends over the surface; a value of each symbol being indicated by a placement of the at least one marking in relation to the raster point; the method comprising:

determining markings which at least partially overlap one another, and reading for each overlapped marking at least one contrasting indicator, the spatial extent and a place within the marking of which indicate a placement of the marking.

Claim 19. (Original)

An apparatus for reading a coding pattern which is located in an image and which comprises symbols, wherein the symbols represent at least two different values, each symbol comprising a raster point and at least one marking; the raster point being included in a raster which extends over the surface; a value of each symbol being indicated by a placement of the at least one marking in relation to the raster point, the apparatus comprising:

means for determining markings which at least partially overlap one another; and

means for reading for each overlapping marking at least one contrasting indicator, the spatial extent, and a place within the marking that indicates a placement of the marking.

Claim 20. (Original)

An apparatus according to claim 19, wherein the apparatus is handheld.

Claim 21. (Original)

An apparatus according to claim 20, wherein the apparatus further includes means for wirelessly transferring information.

Claim 22. (Original)

A method for reading a coding pattern located in an image comprised of a plurality of symbols, the method comprising:

detecting a symbol in the plurality of symbols, each symbol being defined by a raster point and at least one marking, the raster point being included in the raster which extends over the surface;

determining a value of the symbol, wherein the value is defined by a spatial relationship between the marking and raster point;

identifying markings that at least partially overlap;

determining at least one contrasting indicator for each overlapping marking; and

determining a location of the marking based on the at least one contrasting indicator.

Claim 23. (Original)

A system for reading a coding pattern contained within an image having a plurality of symbols and residing on a surface of a product, the system comprising:

an apparatus configured to detect a symbol in the plurality of symbols, each symbol defined by a raster point and at least one marking, the raster point being included in a raster extending over the surface; and

an image processor in communication with the apparatus and configured to

identify markings that at least partially overlap one another;

determine at least one contrasting indicator for each overlapping markings; and

determine a location of the marking based on the contrasting indicator;

determine a value of the symbol, wherein the value is as least defined by the location of at least one marking with respect to at least one raster point.

Claim 24. (Original)

A computer-readable medium containing instructions that, when executed, perform a method for reading a coding pattern located in an image comprised of a plurality of symbols, the method comprising:



detecting a symbol in the plurality of symbols, each symbol defined by a raster point and at least one marking the raster point being included in a raster which extends over the surface;

identifying markings that at least partially overlap one another;

determining a location of at least one marking based on the contrasting indicator; and

determining a value of the symbol, wherein the value is at least defined by the location of the at least one marking with respect to the raster point.

Claim 25. (Currently Amended)

A method of carrying information in an image, the method comprising:

employing an image made up of a plurality of markings, the markings being spaced from each other at predetermined intervals; and

modifying the image by slightly moving the markings from original locations to displaced locations, such that varying directions of movement from an original location reflect varying informational values,

wherein the original locations of each marking of the plurality of markings lie on one of a plurality of raster points, the plurality of raster points being regularly spaced and wherein the displaced locations of markings are defined by an offset of a center point of each marking from a respective raster point.

Claim 26. (Cancelled)

Claim 27. (Currently Amended)

The method of claim ~~26~~ 25, wherein the raster points are virtual.

Claim 28. (Original)

The method of claim 27, wherein the image is a picture.

Claim 29. (Currently Amended)

A method of using a coding pattern to generate an image, said coding pattern comprising symbols which represent at least two different values, each symbol comprising a raster point and at least one marking; the raster point being one of a plurality of regularly spaced raster points included in a raster; a value of each symbol being indicated by a displacement of a center point of the at least one marking in relation to the raster point; said method comprising:

providing each marking with such spatial extent that the markings in combination, at least, partially form the image.

Claim 30. (Original)

A method according to claim 29, wherein the coding pattern is based on a first cyclic number series, and wherein no sequence consisting of a first predetermined number of digits occurs more than once in the number series.

Claim 31. (Original)

A method according to claim 29, wherein the coding pattern codes a plurality of positions, each position being coded by a plurality of symbols.

Claim 32. (Original)

A method according to claim 31, further comprising associating the coding pattern with a virtual space which is defined by all the positions that the coding pattern is capable of coding, a plurality of position regions being defined in the virtual space.

Claim 33. (Original)

A method according to claim 32, wherein the regions are associated with rules for interactive actions between a user and actors associated with the regions.

Claim 34. (Original)

A method according to claim 33, wherein the actions include any of presenting an image, presenting moving images and presenting sound.

Claim 35. (Original)

A method according to claim 34, wherein the actions include electronic commerce actions.

Claim 36. (Original)

A computer readable medium having embodied thereon a computer program which can be read by a computer and which comprises instructions for causing a computer to execute the method according to any one of claims 16-17.

Claim 37. (Original)

A computer readable medium having embodied thereon a computer program which can be read by a computer and which comprises instructions for causing a computer to execute the method according to claim 19.

Claim 38. (Previously Presented)

The product of claim 1, wherein said at least one marking has a center of area displaced from the raster point.

Claim 39. (Previously Presented)

The method of claim 16, wherein said at least one marking has a center of area displaced from the raster point.

Claim 40. (Previously Presented)

The method of claim 25, wherein said at least one marking has a center of area displaced from said original location.

Claim 41. (Previously Presented)

The method of claim 29, wherein said at least one marking has a center of area displaced from the raster point.